Forestry on peatland habitats: Supplementary guidance to support the FC Forests and Peatland Habitats Guideline Note (2000)

Reason for this guidance

Trees can help to mitigate climate change by sequestering carbon. However, in some circumstances forestry operations on deep peats may result in an overall release of carbon due to changes in the soil. Therefore, on deep peats, defined here as soils with a peat layer exceeding 50cms in depth, forest managers should consider the carbon impact of management options alongside other priorities such as timber production, biodiversity and landscape.

Background

This guidance supplements the ‘FC Forests and Peatland Habitats Guideline Note’ published in 2000 and reflects recent scientific research. Further advice on managing deep peat clearfell sites is given in the FCS Background Note ‘Information to support the FCS Forestry on Peatland Habitats supplementary guidance’, available on the FCS website from April 2014.

Good forestry practice on peat soils

In accordance with the UK Forestry Standard, there is a general requirement to minimise soil disturbance, particularly on organic (peaty) soils. There is also a general requirement to consider the potential impacts of soil disturbance when planning operations involving cultivation, harvesting, drainage, and road construction.

Avoiding net carbon losses on deep peat

The following guidance should be used to avoid a net carbon loss on deep peat:

Woodland creation

In accordance with the UK Forestry Standard, avoid establishing new forests on soils with peat exceeding 50 cm depth and on sites that would compromise the hydrology of adjacent bog habitats.

Restocking

There is a strong presumption in favour of restocking after clearfelling in accordance with the UK Forestry Standard and the Scottish Government’s Policy on Control of Woodland Removal.

However, on deep peats, the following guidance should be followed:

1) Where the site is a priority for habitat restoration, conventional restocking will not be required. This applies to sites designated for their peatland interest (e.g. SSSI), sites containing rare or high ecological quality peatland types (where restocking may not be
allowed), and sites that can be restored to improve the condition or functional connectivity of associated priority habitats.

Most priority habitat restoration will be to open habitat, however in some cases it will be more appropriate to restore native woodland or bog woodland (or scrub in some cases). Advice on whether a site is restorable should be sought from an ecologist with specialist knowledge of restoring afforested peatland. Local SNH or FCS staff should provide information on potential sources of this advice.

2) Where the site is not a priority for restoration and is unlikely to support rapid enough tree growth to compensate for greenhouse gas losses from the soil – understood to be Yield Class 8 or above for Sitka spruce - the objective should be to create peatland edge woodland. This is intended to maintain woodland cover which supports a positive carbon balance and maintains other environmental benefits. More information about peatland edge woodland and the circumstances in which it may be an appropriate option are set out at the Appendix.

In April 2014 FC Scotland will publish a recommended assessment method for determining the most appropriate option for deep peat clearfell sites that are not a priority for restoration. Peatland edge woodland will be seen as the appropriate option on sites with a potential yield class of below 8 (Sitka spruce), unless a case can be made for restoration to open ground peatland or other native habitat.

3) Where the site is not a priority for restoration and is likely to support tree growth greater than Yield Class 8 (Sitka spruce), then conventional restocking should be undertaken.

What to do next

A woodland creation proposal for a site that may have significant areas of peat will require a survey to demonstrate the distribution of shallow and deep peat, and an assessment of the level of hydrological connectivity with adjacent peatland. Reference can also be made to soils maps, such as those provided on the Scotland’s Soils website, see www.soils-scotland.gov.uk.

Felling proposals on sites that contain areas of deep peat will require evidence that restocking options have been considered in line with this supplementary guidance. FC Scotland is currently trialling this guidance in selected areas to provide examples of good practice.

Forestry Commission Scotland
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Appendix – Peatland Edge Woodland

What is peatland edge woodland?

Peatland edge woodland aims to make the best use of peatland that is neither suitable for conventional restocking, nor a priority for peatland restoration, so that it continues to deliver multiple benefits including no net loss of carbon.

The objective is to achieve at least 20% canopy cover in order to maintain a range of benefits that would not be achieved from either conventional restocking or peatland restoration. This option can be secured through a conditional felling licence or management plan. The UKWAS adjacency rules would not apply to these woodlands.

Where is peatland edge woodland the appropriate option?

It is the appropriate option on sites where the recommended assessment method (detailed in the accompanying FCS Background Note,) indicates a potential yield class of below 8 (Sitka spruce), unless a case can be made for restoration to open ground peatland or other native habitat.

Creating and managing a peatland edge woodland

A typical specification for peatland edge woodland would be low density planting comprising 50% planted, 50% open ground. It would be restocked with native species within their natural range, in groups with spacing no greater than 1.5m between stems and no less than 500 stems per gross hectare.

This model of woodland might be achieved by, for example:

- Taking advantage of natural regeneration whenever acceptable results (stocking and species mix) are likely to be achieved within a reasonable timescale.
- Where planting is necessary, matching locally native tree and shrub species to site conditions. Mimicking natural patterns of plant spacing and distribution will encourage these native stands to become semi-natural in the long-term.
- Allowing an element of non-native natural regeneration on sites with an internal forest boundary to help secure a positive carbon balance, provided this regeneration does not compromise the growth of native planting on the site.
- Confining non-native regeneration to coupes within remaining forest areas will reduce the threat of invasive spread onto adjacent open peatland habitat or native woodland.
- Using minimal cultivation and retaining little or no artificial drainage.
- Being located where it will provide a gradation from high forest to areas of existing or restored peatland, but without transgressing onto associated buffer zones (particularly for high value or designated peatland sites).
- Maintaining deer populations at less than 5 per square kilometre.
- Removing invasive or non-native shrub species e.g. Rhododendron ponticum.